

Title (en)
SYSTEMS AND METHODS FOR STOCHASTIC OPTIMIZATION OF A ROBUST INFERENCE PROBLEM

Title (de)
SYSTEME UND VERFAHREN ZUR STOCHASTISCHEN OPTIMIERUNG EINES ROBUSTEN INFERENCEPROBLEMS

Title (fr)
SYSTÈMES ET PROCÉDÉS D'OPTIMISATION STOCHASTIQUE D'UN PROBLÈME D'INFÉRENCE ROBUSTE

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Abstract (en)
[origin: WO2019104443A1] The present disclosure provides methods and systems for stochastic optimization of a robust inference problem using a sampling device. Specifically, the methods and systems of the present disclosure enable smoothing of objective functions, thereby making such functions amenable to computation via stochastic-gradient methods using sampling in place of solving the inference problem exactly. Such methods and systems advantageously connect the gradient of the smoothed function approximation to a Boltzmann distribution, which can be sampled by a sampling device, such as a Gibbs sampler, using a simulated process and/or quantum process, in particular quantum-annealing process, thermal or adiabatic relaxation of a classical computer, semi-classical computer, or a quantum processor/device, and/or other physical process.

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